

REMARKS/ARGUMENTS

This Amendment is responsive to the Office Action mailed on April 10, 2007.

A number of rejections are made in the Office Action. Each rejection is addressed in the order presented in the Office Action.

I. Rejections Under 35 U.S.C. § 101

At page 3 of the Office Action, claims 1-40 are rejected as allegedly being "non-statutory" under 35 U.S.C. § 101, because the claims are alleged to not provide a "useful, concrete, and tangible result." Applicants respectfully disagree.

Each independent claim recites "forming a classification model" which can differentiate samples into different classes such as cancer or non-cancer. See, pages 26-28 of the specification. Clearly, identifying samples as being associated with conditions such as cancer or non-cancer is "useful, concrete, and tangible."

Many of the claims are also directed to "systems" including a "gas phase ion spectrometer" (e.g., claim 37). Such "systems" are clearly "concrete" as they are embodied by physical objects and are "useful, concrete, and tangible."

Further, under the Examiner's rationale, no software claim would ever be allowable, since software code does not "output, store, or produce any tangible form." As the Examiner is aware, thousands of software patents have been granted by the U.S.P.T.O., and the Examiner's overly broad application of "useful, concrete, and tangible result" is inconsistent with the way that the U.S.P.T.O. examines software applications in general.

Accordingly, withdrawal of the rejections under 35 U.S.C. § 101 is requested.

II. Double patenting

Claims 1-34 and 39-40 are rejected for obviousness-type double patenting in view of Pause et al. (US 6,675,104). This rejection is traversed.

Claim 1 is amended to recite "c) interrogating the classification model to identify one or more features that differentiate the different biological status of each class from the biological status of other classes in the class set, wherein the one or more features include signal shapes, signal areas, signal widths, or the number of signals in each mass spectrum, or any combination thereof." Independent claim 35 is amended in a similar manner. This feature is not taught or suggested by the claims in Paulse et al., and the pending claims are therefore patentably distinct over the claims in Paulse et al.

III. 35 USC 102(e) - Hitt


Claims 1-40 are rejected as anticipated by Hitt et al. (US 2003/0004402). This rejection is traversed.

Claims 1-40 are not anticipated by Hitt et al. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP 2131. Claim 1 is amended to recite "c) interrogating the classification model to identify one or more features that differentiates the different biological status of each class from the biological status of other classes in the class set, wherein the one or more features include signal shapes, signal areas, signal widths, or the number of signals in each mass spectrum, or any combination thereof." Independent claim 35 is amended in a similar manner. This feature is not taught or suggested by the Hitt et al. and is therefore patentable over Hitt et al.

CONCLUSION

Applicants believe all claims now pending in this Application are in condition for allowance. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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